



## **Small Business Administration**

### **SBA Procurement & Grants Management Segment Architecture**

#### **Strategic Roadmap**

*Version 1.00*

*August 2008*



## Revision Sheet

### Revision History/Change Log

#### PGM Segment Architecture Target State

Version	Date	Description
1.00	8/21/2008	Added strategic alignment table in Appendix B to map initiatives to goals and objectives

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\*NOTE\* TABLE 19, TABLE 20, AND TABLE 21 HAVE BEEN REDACTED FOR PUBLICATION

## 1 Executive Summary

The segment architecture process for PGM has followed a defined three step process. First, the current state was analyzed and documented. Then, PGM's target state architecture was defined, based on improvement opportunities identified in the current state and the principles of the SBA enterprise architecture. Finally, the PGM Roadmap is the third deliverable for this iteration of the PGM Segment Architecture. The roadmap describes the PGM transition strategy to achieve the target state architecture and identifies initiatives needed to fulfill the program vision. It identifies which projects are required to achieve the target architecture and the order in which they should be executed. The high priority business opportunities previously identified in the PGM Target Architecture v1.00 were grouped into logical initiatives, each of which may list one or more projects.

The initiatives that have been identified as crucial to PGM's modernization efforts include:

- Initiative 1 – Contract Management System
- Initiative 2 – Procurement and Grants Invoicing
- Initiative 3 – Enterprise Wide Contract Management System
- Initiative 4 – Strategic Procurement
- Initiative 5 – Self Service Portal
- Initiative 6 – AC MIS Integration

Each initiative includes multiple work tracks and may include several projects or phases within the initiative.

The Roadmap also includes:

- Prioritized sequencing of these business change initiatives
- High level five-year plan and schedule
- Cost benefit analysis of proposed initiatives
- Mapping of initiatives to the opportunities previously identified

Note that the segment architecture for PGM should be a dynamic and living document. The PGM segment architecture should be updated as business needs, technology advancements, and mandated changes to rules and regulation are required. It is the first strategic step to enable PGM to enhance and support decision making during the identification, development and implementation of business and IT improvement initiatives. It will be used as the cornerstone of PGM's IT planning, and provide guidance for ongoing governance and capital planning processes.

## **2 Scope of the Document**

This document provides a strategic roadmap for the SBA PGM segment by identifying the gaps at the performance, business, service component, data, and technical architecture layers between the current, as-is architecture and target, to-be architecture. The document proposes several initiatives to fill these gaps and creates a high-level sequencing plan for these initiatives.

### 3 Current State and Target State Gap Analysis

The target state architecture describes future business needs, the data required to support future business capabilities, the services required to manage data and automate business processes, and the technologies that will provide the infrastructure for high performance business applications, data management, and communications.

This section describes the gaps between the PGM target state architecture relative to the current state architecture for the performance, business, service components, and data architecture layers. The architectural recommendations describe the transition plan from the current state to the target state and form the basis of the initiatives described in the following sections.

#### 3.1 Performance Architecture Gap Analysis

##### 3.1.1 *Mission and Vision*

The mission and vision of the PGM segment remains unchanged. It continues have the mission of providing sound business advice, effective contracting solutions, and reliable grants management support that assist customers (SBA program offices) in accomplishing their respective missions.

##### 3.1.2 *Goals and Objectives*

The goals and objectives of the PGM segment in the target state are directionally equivalent to the goals pursued in the current state. That said, the segment architecture process has helped to spell out goals and objectives towards that direction more robustly. The differences are summarized as follows:

1. The set of goals targeted in the current state were augmented to reflect more aspects of success. The set provides greater clarity into operational excellence, customer satisfaction, and strategic procurement.
2. They were leveled into goals and objectives, where goals are subjective statements of intent and objectives are objective statements of achievement, demonstrable through the use of performance indicators.

These updated goals and objectives have been outlined in detail in the Procurement & Grants Management Segment Architecture Target State document.

##### 3.1.3 *Performance Measures*

The PGM segment plans on dropping the following metrics which are no longer relevant:

1. Percent of contract actions resulting in automated obligations
2. Percent of contracts and POs managed through contract management system

The PGM segment will add the following new metrics to better define success. For many of these new metrics, a performance gap has been perceived that PGM hopes to close in the target state.

1. Average processing time per grant action: Analogous to PALT for procurement, this measure represents how long a grant stays within administrative processing before it is awarded. The amount of time spent processing grants is larger than desired, and given historical trends in grant volumes, addressing this performance metric will be crucial to fulfilling mission objectives of grant program offices.
2. Average time between receiving invoices and sending out for payment processing: The current state of invoice processing occasionally yields payment delays. Delays beyond

statutory limits result in interest penalties and reduced customer satisfaction. Thus the PGM segment seeks to reduce its invoice payment time.

3. Percentage of contracting staff that are certified: With limited certified contracting staff, certain operations can only be performed by a small subset of individuals. This creates process bottlenecks and yields delays. PGM seeks to improve training and certification among COs/GOs, COTRs/GOTRs, and project managers.
4. Contractor/grantee satisfaction (survey scores): Satisfaction of external stakeholders with the SBA's procurement and grants segment is not formally tracked. However, anecdotal information suggests that satisfaction is lower than desired. Given the partnership nature of grants, satisfaction of grantees with the grant process is important to ensuring a good working relationship.
5. Percent of contracts and purchase orders awarded competitively: The measure of competitive awards is not currently used as a way of defining success. However, the greater degree of competition, the greater likelihood that final contract costs will be lower.

The following are metrics from the current state that will continue to apply in the target state, but where a significant performance gap exists between current and target state:

1. Average processing time per procurement action (Purchase Order Procurement Administrative Lead Time): This measure represents how long a procurement stays within administrative processing before it is awarded. The amount of time spent processing procurements is longer than desired, often times failing to meet the expectations of program offices. Programs rely on an efficient procurement process to meet their goals; improving this metric in the target state is of major importance to the PGM segment.
2. Average age of unobligated requisitions: This is roughly the amount of time that program offices must wait for fulfillment from when a request was first made. The same discussion for "Average processing time per procurement action" applies here.
3. Percentage of DPGM customers satisfied (survey score): The level of program office satisfaction has significant room for improvement. It is important to ensure that procurement and grants management is performed in a manner that best supports program office results; customer satisfaction of these stakeholders is a proxy for this measure.

## 3.2 Business Architecture Gap Analysis

### 3.2.1 Business Functions

The PGM Segment will add the following three business functions:

1. Workflow Management: Responsibilities, expectations, and next steps in processes are determined and communicated to stakeholders. As soon as a procurement or grant enters into a state where it is ready to be operated on by some stakeholder, workflow management proactively informs stakeholders of this information.
2. Strategic Procurement: This function involves the work of "big picture" procurement thinking, such as finding opportunities to consolidate procurements and/or improve the strategies taken on specific types of procurements.
3. Customer Service: This function responds to customer inquiries and feedback. Though done implicitly in the current state, the target state has formal, explicit customer service function. Typically this involves researching and communicating information about a



procurement or grant, such as workflow status and next steps. It also involves receiving feedback on successes and challenges with dealing with DPGM and educating customers on expectations, regulations, and roles and responsibilities on completing a procurement or grant

### **3.2.2 Business Processes**

The PGM Segment will add the following new process:

1. Advance-style invoicing and payment: In addition to offering the traditional reimbursement-style grants, PGM will utilize this new style of invoicing and payment for select grants. Under this process, payments are issued in advance, and invoices are used to reconcile differences in what was advanced and what should have been paid. The difference in reconciliation is applied to the subsequent advance payment.

The following existing processes will be modified:

1. Acquisition planning process: In the current state, the acquisition planning process rarely occurs, if at all. This creates unrealistic time expectations and prevents the identification of strategic procurement opportunities. In the target state, the presence of a "procurement toolbox" with standard forms and templates will facilitate the creation of acquisition plans.
2. Acquisition package and solicitation processes: In the current state, a lack of communication and a lack of visibility into status and timelines result in activities taking much longer than they are otherwise expected to take, and customer satisfaction suffers. In the target state, collaborative technologies and the implementation of electronic workflow will increase visibility and facilitate back-and-forth communication between parties.
3. Award process: Language used in the award process must occasionally contain special provisions in unique classes of cases, requiring language to go through a review process. In the target state, IT systems will promote the reuse of special language, speeding up language review, and electronic workflow will speed up the awards process in general.
4. Funding commitment process: In the current state, when funds are committed through creating a requisition in the accounting system, a manual step is required to determine if the requisition will lead to a procurement action. If a procurement action is required, a procurement specialist is assigned the task, and the information from the accounting system must be manually entered into the procurement system. In the target state, the commitment step consolidates the creation of an open requisition and the commencement of a procurement action. The relevant information from the accounting system is automatically copied into the contract management system.
5. Funding obligation process: When a procurement is about to be awarded through the procurement system, the funding for that procurement must be authorized. This authorization comes through obligating funds through the accounting system. In the current state, the obligation action must take place manually. Checks do not exist to ensure that the obligation has been executed correctly and with the right information. In the target state, the one step will consolidate the process of obtaining funding authorization and obligating funds. Data from the contract management system will automatically enter the accounting system and be used for obligation.
6. Invoicing and payment processes: In the current state, the invoice review process has been identified as a major hotspot. The review by the program office COTR / GOTR has

not always been timely, and the review by CO is often impacted by workload and staff count issues. Communication between offices is error-prone, with each side having differing opinions on status. In the target state, IT systems will provide greater visibility into the invoice review process, clarifying workflow status and ensuring that parties understand who has what responsibility. Systems will facilitate communication between offices and will identify where time is being spent.

### 3.3 Service Component Architecture: Gap Analysis

1. Contract management: The current procurement IT system does not have sufficient functionality and flexibility to support the procurement and grants processes at the SBA, particularly to meet its needs for visibility, workflow, and grant creation. The current system provides access to contracting officers (COs) but does not provide access to contracting officer's technical representatives (COTRs) of program offices or other stakeholders. The PGM target state calls for an IT system that meets the needs of all stakeholders and provides meaningful access to stakeholders enterprise-wide. As a first step in this direction, the SBA has selected a new COTS contract management system to replace the current system. The agency underwent a vendor selection process that included a review by the SBA Business Technology Investment Advisory Council (BTIAC), the SBA Business Technology Investment Council (BTIC), an SBA Technical Review Board (TRB). The implementation of this system is an in-flight initiative.
2. Invoicing and payment: Currently the invoicing and payment for procurement and grants are performed manually. The invoicing payment status cannot be tracked easily, thus providing limited or no transparency for stakeholders. The contract management system selected by the SBA to address the procurement system gap will not address the invoicing and payment gap. In the target state, IT systems that provide workflow support, visibility into the process, electronic invoicing, and access to stakeholders enterprise-wide, including vendors and grantees, will be fully implemented. As a first step, the SBA has started a pilot using an invoicing and payment system from the Department of Health and Human Services (HHS) Center of Excellence (COE) for grants invoicing and payment. The HHS COE is a Grants Management Line of Business (GM LoB) shared service center. If this pilot is successful, the SBA will use the system offered by the HHS COE for all SBA grants invoicing and payments. On the procurement side, the SBA has started investigating a shared service solution as a procurement invoicing system.
3. Enterprise-wide infrastructure to support procurement processes: The current state lacks the infrastructure and service components essential for enabling the target state business capabilities. Missing are foundational, horizontal services for business intelligence, reporting, management of processes, document management, data exchange, email, threaded discussion, real-time chat, and instant messaging.
4. Service components supporting self-service: Currently external stakeholders interact with the PGM function largely via paper processes. This slows down efficiency, is error prone, and leads to a lack of visibility. Self-service service components, such as a portal, will encourage active participation from customers and provide process transparency. It would greatly increase customer satisfaction while reducing the workload of DPGM and program office personnel.
5. Learning management capability to integrate internal contract personnel training records with eGovernment tracking initiatives: A learning management system, deployed under the auspices of the Human Capital Management (HCM) segment, is required to maintain PGM training records in the target state. This system will have an automated interface to the Integrated Acquisition Environment (IAE) Acquisition Career Management

Information System (ACMIS) in order to meet the government-wide mandates, prevent double-entry, and promote better internal management of PGM workforce training.

### 3.4 Data Architecture: Gap Analysis

1. Enterprise-wide data access: In the current state, no facility exists to support enterprise-wide data access to core PGM data, including procurement and grants data, invoice and payment data, and workflow data. In the target state, service components that promote enterprise-wide visibility and workflow participation rely on the enterprise-wide data access. The target state thus provides a data mart which aggregates this data and makes it available, based on role-based access control.
2. Data sharing interfaces with e-Gov systems: In the current state, integration with such systems as FPDS, CCR, FedBizOpps, Grants.gov, and ACMIS are largely manual or partially automated. To promote higher data quality and compliance, these interfaces are fully automated in the PGM target state.
3. Data sharing with SBA financial systems: Interfaces between procurement systems and the SBA financial systems do not exist. Data must be double-entered and manually synchronized to execute procurement processing. In the target state, data sharing between the procurement and grants system, invoicing systems, and SBA financial systems will be automated. Workflow steps requiring both systems will be consolidated, and data will automatically be transferred and synchronized.

### 3.5 Technical Architecture: Gap Analysis

1. Data Warehouse: In the target state, a data mart provides enterprise-wide access to core PGM data. This data mart is provisioned through an enterprise data warehouse. This data warehouse does not exist in the current state but is planned to exist in the target state.

## **4 Business Change Initiatives**

### **4.1 Initiative #1: Contract Management System**

#### **4.1.1 Concept Summary**

##### **4.1.1.1 Background**

DPGM currently uses a procurement system referred to as Comprizon to support the procurement process. It has very limited functions and lacks of the support for full life cycle processes, the data interface with e-Gov systems and internal financial systems, flexibility, and process transparency. There are very few service components accessible to the grants function in DPGM. The grants personnel have to manually communicate the data, workflow, or state between parties. A new system is urgently needed to replace Comprizon and to support both procurement and grants processes.

Procurement and grants processes have federal mandates that information needs to be reported to e-Gov systems such as FedBizOpps.gov, FPDS.gov, and Grants.gov. Implementing data exchange interfaces with these e-Gov systems can greatly improve efficiency and save time. A procurement and grants system also requires the data from CCR for full lifecycle support.

A procurement and grants system needs interfaces with SBA financial system to exchange key financial information such as fund commitment, obligation and availability. In current state the information is manually transmitted. Automating the interfaces can greatly improve efficiency and reduce errors.

Currently there is no IT system supporting the program offices to track the status of procurement and grants processes. A low-cost, short-term solution is needed to provide visibility to program offices for its basic needs.

##### **4.1.1.2 Solution Description**

Implementation is already underway for a Contract Management System (CMS) to handle procurement and grants management. CMS will replace Comprizon as the main IT system in DPGM to manage the creation and modification of procurements and grants. The CMS will be integrated with FedBizOpps.gov for procurement opportunities, FPDS.gov for procurement awards, Grants.gov for grants opportunities, and PPIRS (Past Performance Information Retrieval System) for past performance information, as well as with CCR as an incoming interface. Outgoing interfaces such as fund commitment and obligation, and incoming interfaces such as available funding and other financial data, will be developed between CMS and the SBA financial systems.

The primary objective of the CMS implementation, at this stage, is to support DPGM's processes. Secondly, it will improve process transparency for program offices. The CMS's base functionality for improving visibility will be evaluated to determine if it supports sufficient access to program offices to be meaningful as a first cut. A larger initiative to support enterprise-wide CMS visibility will provide enhanced capabilities in this arena.

#### **4.1.2 Benefits**

##### **4.1.2.1 Qualitative Benefits**

- Allow contract specialists to focus on value-added activities
- Provide internal transparency and data consistency with DPGM
- Provide a uniform user interface

- Reduce manual interactions and touch points
- Enable the incoming interfaces with CCR to support an integrated data view for the whole life cycle

#### **4.1.2.2 Financial Benefits**

- Save time and labor by eliminating manual process tracking
- Automate the e-Gov interfaces for better efficiency and less error
- Save time and labor by eliminating manual interfaces with e-Gov systems
- Automate the interfaces with SBA financial systems for better efficiency and less error
- Save time and labor by eliminating manual interfaces with SBA financial systems

#### **4.1.3 Dependencies and Assumptions**

##### **4.1.3.1 Dependencies**

- This initiative has no dependency on the other initiatives

##### **4.1.3.2 Assumptions**

- The CMS system selected has undergone review by the BTIC, BTIAC, and a TRB. Since the segment architecture process is solution agnostic, the architecture assumes that the CMS selected is the best solution to meet the needs of the SBA PGM segment.
- No data migration from Comprizon to CMS.
- Procurement and grants business processes are very similar
- Out-of-the-box CMS can satisfy the primary business needs of procurement and grants process.
- CMS supports customization.
- CMS built-in interfaces can be activated and meet the needs without further customization.

#### **4.1.4 High Level Implementation Plan**

##### **4.1.4.1 Work Tracks**

###### **Work Track 1: CMS Implementation**

The implementation of CMS is already in progress. It is currently in the stage of certification and accreditation (C&A). Once passed, CMS will be piloted and training will be provided to DPGM users before launch.

###### **Work Track 2: Outgoing Interface to e-Gov Systems**

CMS has built-in interfaces with e-Gov systems such as FedBizOpps.gov, FPDS.gov, and Grants.gov. Activate these built-in interfaces in CMS and perform tests, or continue using the existing semi-manual process such as publishing to Grants.gov. Customize or implement new interfaces if the CMS built-in interfaces cannot meet the needs.

###### **Work Track 3: Incoming Interface from External Systems**

CMS has built-in interface with CCR. Activate the built-in interfaces in CMS and perform tests. Customize or implement new interfaces if the CCR interface cannot meet the needs.

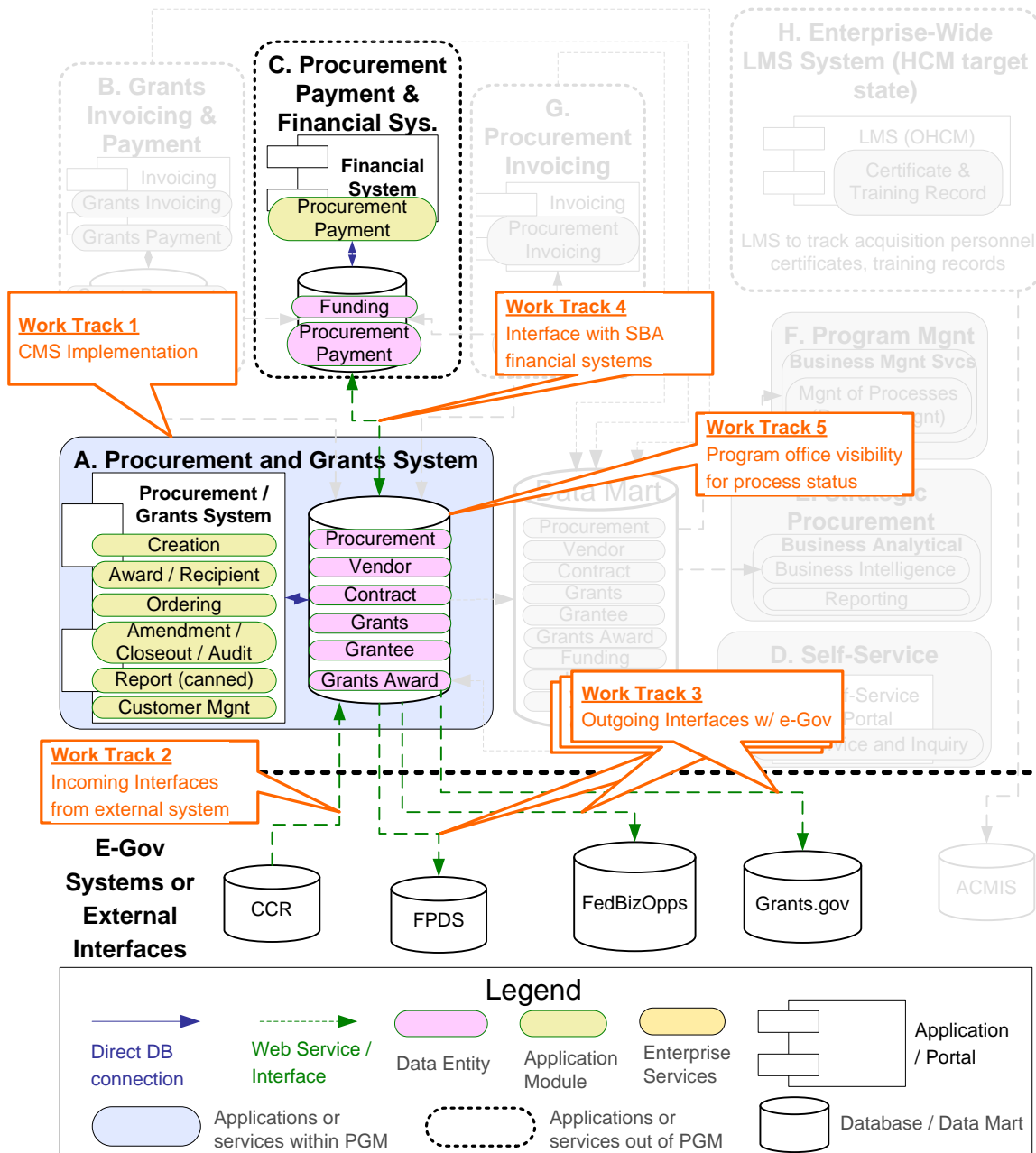
**Work Track 4: Interface with SBA Financial Systems**

Implement the outgoing interfaces such as fund commitment and obligation, and incoming interfaces such as available funding information.

**Work Track 5: Program Office Visibility for Process Status**

Spend minimum customization efforts to provide program office the visibility of process status. Provide program office access to CMS if it supports the access control. Otherwise manually create reports and provide to program office personnel.

This diagram illustrates how each work track in this initiative impacts on target state architecture:

**FIGURE 1: PROCUREMENT AND GRANTS SYSTEM WORK TRACKS**


#### 4.1.4.2 Key Resources

1. Project Manager: Person able to apply business and implementation expertise to drive the project success and get commitment from all internal and external stakeholders
2. Business Process Analysts: Analysts who are familiar with the business and can help write the necessary requirement documents and aid in creating the functional specifications
3. Development Resources: Person(s) able to implement the tools and support systems described in this initiative



### 4.1.5 Key Issues and Risks

Execution risks relevant to this initiative, and their mitigation strategies, are listed below.

**TABLE 1: PROCUREMENT AND GRANTS SYSTEM RISKS AND MITIGATION**

Risks	Mitigation Strategies
CMS does not support the needed customization and its database cannot be accessed by other custom-built systems	Negotiate with CMS vendor for the rights to use CMS database and the knowledge of its data schema. Set up data replication process, if necessary, to synchronize CMS data to another database that the custom-built system could access.
CMS does not provide the built-in interfaces or may need customization	Customize CMS interfaces for desired behavior, or work with e-Gov program offices to implement the interfaces Revisit the solution architecture
Financial system cannot be fully integrated due to security concerns	Manually work-around by using indirect semi-automatic data interfaces Revisit the solution architecture
Security risks of the data exchange interfaces with external systems on the internet	Verify and validate security measures on external data interfaces

### 4.1.6 Cross Reference with Opportunities

This initiative helps realize the following opportunities in the target state:

**TABLE 2: OPPORTUNITIES REALIZED BY PROCUREMENT AND GRANTS SYSTEM**

#	Opportunity
6	Centralized procurement / grant access
4	Automatic workflow notification
7	Paperless communication across stakeholders
11	Greater grants transparency to comply with Public Law 106
2	Hold POs accountable for their contracting tasks
1	Capturing past performance
3	Hold COs and COTRs accountable for process
17	Automated performance metrics
26	Support for acquisition plans
23	Program office workflow visibility
22	Program office status visibility
25	PO access to requisitions, SOWs, awards, and invoices



#	Opportunity
29	Simplified reuse of grant / contract language
31	Standard grant / procurement templates
13	Forecasting available funding shortfalls
38	Simplified obligating and committing funds
35	Supervisor reports on employee tasks
36	Reduce touch points in processes

#### 4.1.7 Cross Reference with Performance Metrics

This initiative targets the achievement of the following performance metrics

**TABLE 3: PERFORMANCE METRICS IMPACTED BY PROCUREMENT AND GRANTS SYSTEM**

#	Performance Metric
1.2.1	Average processing time per action
1.2.3	Ratio of contracts and POs processed per FTE
1.2.4	Average age of unobligated requisitions
2.1.1	Percentage of DPGM customers satisfied (survey score)
2.2.1	Contractor/grantee satisfaction (survey scores)

## 4.2 Initiative #2: Procurement and Grants Invoicing

### 4.2.1 Concept Summary

#### 4.2.1.1 Background

DPGM currently uses a manual, paper-intensive invoicing process for grants and procurement. This process involves significant back-and-forth between DPGM, program offices, and grantees / vendors and suffers from a lack of data visibility. In addition, multiple grants invoicing processes take place at the agency – some programs utilize DPGM services, some perform invoicing themselves, and some are in the process of leveraging a Grants Management Line of Business (GMLoB) shared service center.

#### 4.2.1.2 Solution Description

The SBA will implement IT systems for procurement and grants invoicing and payment. Where the CMS initiative facilitate the beginning of the procurement and grant lifecycle, including steps such as procurement and grant creation, award, and modification, the Procurement and Grants Invoicing IT systems handle the operational part of the procurement and grants lifecycle. These systems will provide greater support for electronic invoicing and payment, communication of status to vendors and grantees, and improved workflow. The initiative first involves piloting the Department of Health and Human Services (HHS) Center of Excellence (COE) solution for a subset of SBA grants. Assuming that the pilot is successful, this solution will be deployed SBA-wide for all grants invoicing and payment. Similarly, a Procurement Invoicing System will be

piloted, evaluated, and rolled out for procurement. The current direction that the PGM segment is taking with the Procurement Invoicing System is to look at a shared service center implementation. Once these systems have been implemented, they will be integrated with the SBA financial system and the CMS system.

#### **4.2.2 Benefits**

##### **4.2.2.1 Qualitative Benefits**

- Streamlined processing resulting in fewer back-and-forth and yielding time savings
- Increased visibility into the process leading to higher customer satisfaction
- Fewer errors and missteps due to standardization
- Automate the interfaces with SBA financial systems for better efficiency and less error

##### **4.2.2.2 Financial Benefits**

- Lower interest penalty

#### **4.2.3 Dependencies and Assumptions**

##### **4.2.3.1 Dependencies**

- Work Tracks 1 and 2 have already been initiated.
- The priority of Work Track 3 is lower compared to Work Tracks 1 and 2. Depending on what is observed from the integration between SBA Financials and the invoicing systems, further integration with the CMS system may not be necessary.

##### **4.2.3.2 Assumptions**

- We assume that the HHS COE solution pilot with Office of Women Business Ownership (OWBO). Women's Business Center (WBC) grants will be successful. This assumption is based on preliminary findings of the pilot and success of using the HHS COE solution on the part of other government agencies.
- We also assume that the Procurement Invoicing System presently selected will work well for procurement invoicing. This has not been investigated significantly at this point in time, since the system itself is in its infancy; however, one government agency has used the Procurement Invoicing System successfully for one of its bureaus, and work is actively underway to expand capabilities and customers.

#### **4.2.4 High Level Implementation Plan**

This initiative is comprised of several work tracks that must be accomplished in order to fully implement the initiative and reach the target state. PGM, together with OCIO, will need to undertake the following steps and plan for the following resources.

##### **4.2.4.1 Work Tracks**

###### **Work Track 1: Grants Invoicing**

- Pilot the HHS COE solution: HHS COE solution for grants invoicing and payment is currently being piloted for use with grants extended by the OWBO. This system is offered as a GMLoB shared service.
- Use the HHS COE solution for all SBA Grants: Assuming that the pilot implementation works successfully, the HHS COE solution will be rolled for usage on all SBA grants. This will involve performing further integration between the HHS COE solution and the SBA financial system.

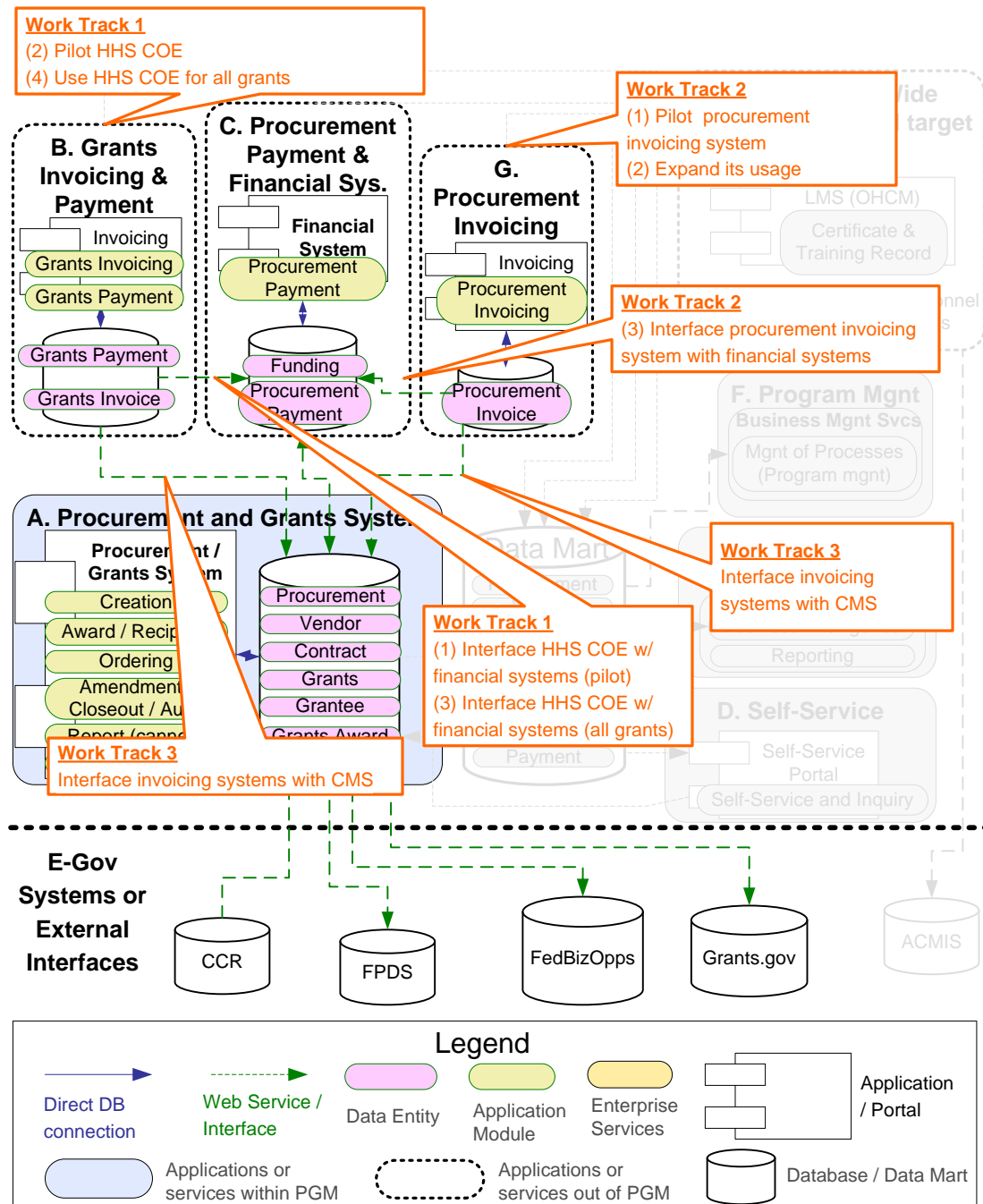
## Work Track 2: Procurement Invoicing

- Pilot the Procurement Invoicing System: A shared service Procurement Invoicing System has currently been identified as a possible candidate system for procurement invoicing. This system will be piloted with a limited set of vendors for invoicing and payment.
- Implementation of Procurement Invoicing System: Depending on pilot success, The SBA will transition more vendors to using the Procurement Invoicing System for payment and invoicing. The rate at which vendors will transition to the Procurement Invoicing System will depend on the rate at which this system matures and supports more procurement types.
- Interface the Procurement Invoicing System with SBA Financial Systems: For pilot and expanded usage, the Procurement Invoicing System will be a standalone system where information relevant to both this system and other information systems will need to be manually transferred. Once the Procurement Invoicing System has successfully been piloted and usage has expanded to cover a core set of procurements, interfaces between it and the SBA financial system will be developed to minimize double entry of information.

## Work Track 3: Interface between Invoicing and CMS

The procurement and grants invoice and payment systems will initially be separate from the procurement and grants IT system. As a result, some information from the procurement and grants IT system will likely need to be manually transferred to the invoicing and payment systems when it becomes time to start invoicing, or when a contract or grant is modified. Once the invoicing and payment systems are functioning properly, interfaces between the Procurement Invoicing System, the HHS COE solution, CMS, and Financials will be developed to minimize double entry of information. The priority of this work track will depend on the amount of double entry, the encountered error rate of double entry, process delays due to double entry, etc.

The impacts of these work tracks are depicted in the following diagram:

**FIGURE 2: PROCUREMENT AND GRANTS INVOICING WORK TRACKS**


#### 4.2.4.2 Key Resources

1. Project Manager: Person able to apply business and implementation expertise to drive the project success and get commitment from all internal and external stakeholders
2. Business Process Analysts: Analysts who are familiar with the business and can help write the necessary requirement documents and aid in creating the functional specifications
3. Development Resources: Person(s) able to implement the tools and support systems described in this initiative

- a. Denver Financial Center Resource for implementation of payment systems and integration with SBA accounting systems

#### 4.2.5 Key Issues and Risks

Execution risks relevant to this initiative, and their mitigation strategies, are listed below

**TABLE 4: PROCUREMENT AND GRANTS INVOICING RISKS AND MITIGATION**

Risks	Mitigation Strategies
IT systems prove inflexible and difficult to use	Pilot the use of systems for particular programs before deploying agency-wide to determine pain-points
IT systems do not meet the specific needs of the SBA	Design and validate process changes prior to implementing IT systems, perhaps leveraging the experience of other federal agencies Develop a thorough solution architecture
Integration of IT systems with other SBA systems proves challenging	Develop contingency plan for deploying IT systems in non-integrated fashion. Determine what other options exist to promote harmony between systems if direct integration is not possible.  Do not move forward with new systems if positive benefits require full system integration and risks of full system integration cannot be mitigated.

#### 4.2.6 Cross Reference with Target State Opportunities

**TABLE 5: OPPORTUNITIES REALIZED BY PROCUREMENT AND GRANTS INVOICING**

No.	Opportunity
2	Hold POs accountable for their contracting tasks
25	PO access to requisitions, SOWs, awards, and invoices
30	Standards of scrutiny
39	Electronic signatures and forms for invoicing
28	Grant applicant self-service
41	Single agency-wide grant payment process

#### 4.2.7 Cross Reference with Target State Performance Indicators

This initiative targets the achievement of the following performance metrics

**TABLE 6: PERFORMANCE METRICS IMPACTED BY PROCUREMENT AND GRANTS INVOICING**

No.	Performance Indicator
1.2.5	Average time between receiving invoices and sending out for payment processing
2.1.1	Percentage of DPGM customers satisfied (survey score)

No.	Performance Indicator
2.2.1	Contractor/grantee satisfaction (survey scores)

### 4.3 Initiative #3: Enterprise-Wide Procurement and Grants System

#### 4.3.1 Concept Summary

##### 4.3.1.1 Background

The scope of initiative #1 is to offer CMS for DPGM users to manage procurement and grants with a short-term solution to provide limited visibility to program office personnel. There is a need to offer expanded transparency enterprise-wide for program management and program office personnel.

In addition, in the target state there will be at least four systems (CMS, JAAMS, the HHS COE solution, and the Procurement Invoicing System) will be supporting procurement and grants process. Creating separate reports from these systems is inefficient and cannot provide a complete view for the full life cycle.

##### 4.3.1.2 Solution Description

A data mart, as a repository for operational data, is necessary to enable the program office reporting as well as business analytics. The data mart could also enable a long-term solution for program office full-lifecycle access with the capability to track the status of invoicing and payment. The data mart will maintain a snapshot of the operational data image for PGM process. The data source will be CMS, JAAMS, the HHS COE solution, and the Procurement Invoicing System. Data mart will enable the reporting and business analytics functions. Enterprise service components such as reporting and business analytics can be leveraged to create reports based on data mart. Work will also be performed to provide program office personnel the transparency to full life-cycle process status.

#### 4.3.2 Benefits

##### 4.3.2.1 Qualitative Benefits

- Allow contract specialist to focus on value-added activities
- Internal transparency and data consistency
- Enable business intelligence to support strategic procurement
- Collaboration and partnership enablement between DPGM and program offices

##### 4.3.2.2 Financial Benefits

- Time and labor saved due to automate program management and reporting
- Time and labor saved by automating program management and performance metrics reporting
- Time and labor saved by eliminating manual process tracking in program office

#### 4.3.3 Dependencies and Assumptions

##### 4.3.3.1 Dependencies

- This initiative depends on the completion of initiative #1 and #2.

- Work Track 2 depends on the completion of Work Track 1.
- Work Track 3 depends on the completion of Work Track 1.

#### **4.3.3.2 Assumptions**

- CMS database could be accessed by other custom-built systems or DBMS-level services such as data replication
- Procurement and grants invoicing/payment systems support data exchange interface with SBA IT systems
- Enterprise-wide analytics or reporting tools exist and can be used on data mart to create reports
- All program offices have similar processes and basic requirements that can be supported by CMS
- CMS supports the security and access control framework for DPGM and program offices

#### **4.3.4 High Level Implementation Plan**

##### **4.3.4.1 Work Tracks**

###### **Work Track 1: Data Mart**

- Design data repository for procurement and grants operational data to support analytics and program management
- Design and implement data synchronization interfaces

###### **Work Track 2: Program Management**

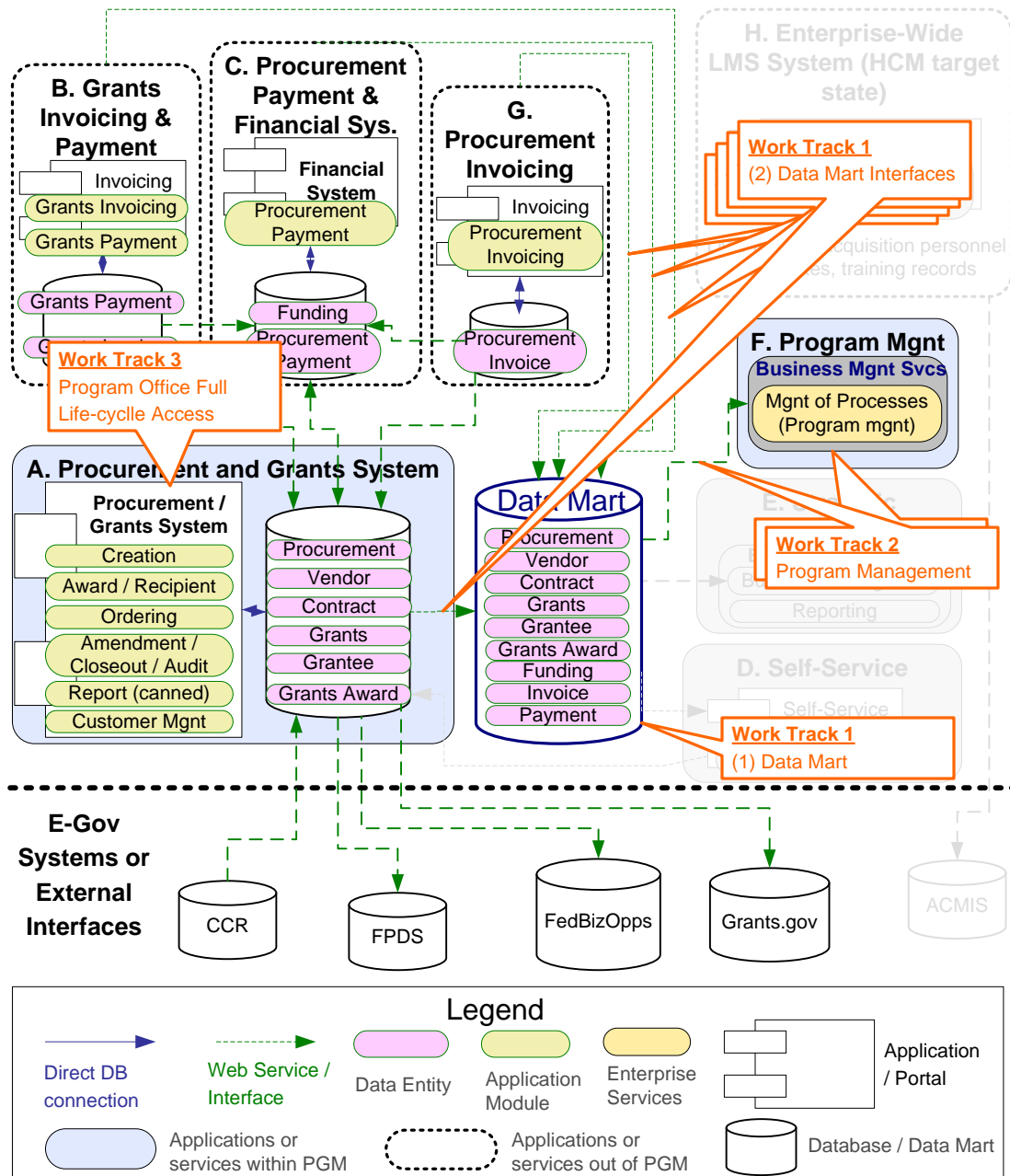
- Define report requirements for tracking and performance metrics
- Implement reports with enterprise service components

###### **Work Track 3: Program Office Full Life-cycle Access**

- Evaluate the functionality of CMS to support program office
- Customize CMS and deploy if it can support program office
- Custom-build system for program office if CMS can not support program office

This diagram illustrates how each work track in this initiative impacts on target state architecture:



**FIGURE 3: ENTERPRISE-WIDE PROCUREMENT AND GRANTS SYSTEM WORK TRACKS**


#### 4.3.4.2 Key Resources

1. Project Manager: Person able to apply business and implementation expertise to drive the project success and get commitment from all internal and external stakeholders
2. Business Process Analysts: Analysts who are familiar with the business and can help write the necessary requirement documents and aid in creating the functional specifications
3. Development Resources: Person(s) able to implement the tools and support systems described in this initiative



### 4.3.5 Key Issues and Risks

Execution risks relevant to this initiative, and their mitigation strategies, are listed below

**TABLE 7: ENTERPRISE WIDE PROCUREMENT AND GRANTS SYSTEM RISKS AND MITIGATION**

Risks	Mitigation Strategies
Lack of enterprise service components such as business analytics and reporting	Communicate the needs to OCIO and ensure that necessary service components are in place
Existing enterprise service components have difficulty integrating with data mart	Design data mart with the inputs from the experts of service components
Some program offices may have specific workflow that cannot be supported by CMS	Adapt workflow to CMS capabilities. If that is not possible, use CMS for basic process and manually manage program-specific workflows
CMS may not have the security or access control framework to support different roles of DPGM and program offices	Evaluate CMS functionality for security, access control, and workflow. Evaluate the potential to compromise the business needs to accommodate the limitation of CMS.
CMS does not support data accessed by other IT systems	Negotiate with CMS vendor for the rights to use CMS database and the knowledge of its data schema. Set up data replication process, if necessary, to synchronize CMS data to another database that the custom-built system could access

### 4.3.6 Cross Reference with Opportunities

This initiative helps realize the following opportunities in the target state:

**TABLE 8: OPPORTUNITIES REALIZED BY ENTERPRISE WIDE PROCUREMENT AND GRANTS SYSTEM**

#	Opportunity
6	Centralized procurement / grant access
4	Automatic workflow notification
7	Paperless communication across stakeholders
11	Greater grants transparency to comply with Public Law 106
1	Capturing past performance
3	Hold Cos and COTRs accountable for process
17	Automated performance metrics
18	Regular individual performance reports
21	Improved metrics that perfectly map to success
20	Regular stakeholder performance reports
19	Regular organizational performance reports

#	Opportunity
23	Program office workflow visibility
22	Program office status visibility
25	PO access to requisitions, SOWs, awards, and invoices
12	Leverage historical data to project future
14	Queries on historical procurement data
13	Forecasting available funding shortfalls
33	Explicitly tie procurements to agency mission & goals
35	Supervisor reports on employee tasks
36	Reduce touch points in processes

#### 4.3.7 Cross Reference with Performance Metrics

This initiative targets the achievement of the following performance metrics

**TABLE 9: PERFORMANCE METRICS IMPACTED BY ENTERPRISE WIDE PROCUREMENT AND GRANTS SYSTEM**

#	Performance Metric
1.2.1	Average processing time per action
1.2.3	Ratio of contracts and Pos processed per FTE
1.2.4	Average age of unobligated requisitions
1.2.5	Average time between receiving invoices and sending out for payment processing
2.1.1	Percentage of DPGM customers satisfied (survey score)
2.2.1	Contractor/grantee satisfaction (survey scores)
3.2.1	Percent of contracts and purchase orders awarded competitively

## 4.4 Initiative #4: Strategic Procurement

### 4.4.1 Concept Summary

#### 4.4.1.1 Background

Procurement currently proceeds as a reactive practice that handles the stream of procurement requests from SBA program offices individually. Looking at the function of procurement holistically, however, one can find opportunities to create value, such as through consolidating procurements, recommending alternative purchases, and finding better options through greater planning.

#### **4.4.1.2 Solution Description**

The Strategic Procurement initiative will enable the type of analysis and reporting necessary to identify strategic procurement opportunities. This initiative will leverage the Data Mart initiative as a foundation for housing historical and planned procurement data. Analysis and reporting tools already deployed onto the data mart will be configured to generate standard and ad-hoc reports of value to the strategic procurement function. The work of this initiative is largely around the definition of the types of data analytics and business intelligence that would be useful to strategic procurement, as well as the implementation of said analytics on existing business intelligence and reporting tools.

#### **4.4.2 Benefits**

##### **4.4.2.1 Qualitative Benefits**

- Allow contract specialist to focus on value-added activities

##### **4.4.2.2 Financial Benefits**

- Cost savings through consolidated purchases, advance purchases, and better procurement execution
  - Lower price on goods
  - Less procurement overhead due to fewer and streamlined contracts

#### **4.4.3 Dependencies and Assumptions**

##### **4.4.3.1 Dependencies**

- Requires completion of Work Track 1 Data Mart from initiative #4 Enterprise Wide Procurement and Grants

##### **4.4.3.2 Assumptions**

- Pursuing this initiative is only meaningful if there is value to extract from within the procurement process. Based on interviews, it seems likely that a sufficient level of value exists to be captured to make the strategic procurement initiative worthwhile.
- We assume that the SBA business intelligence and reporting tools are sufficient for use by the strategic procurement function.

#### **4.4.4 High Level Implementation Plan**

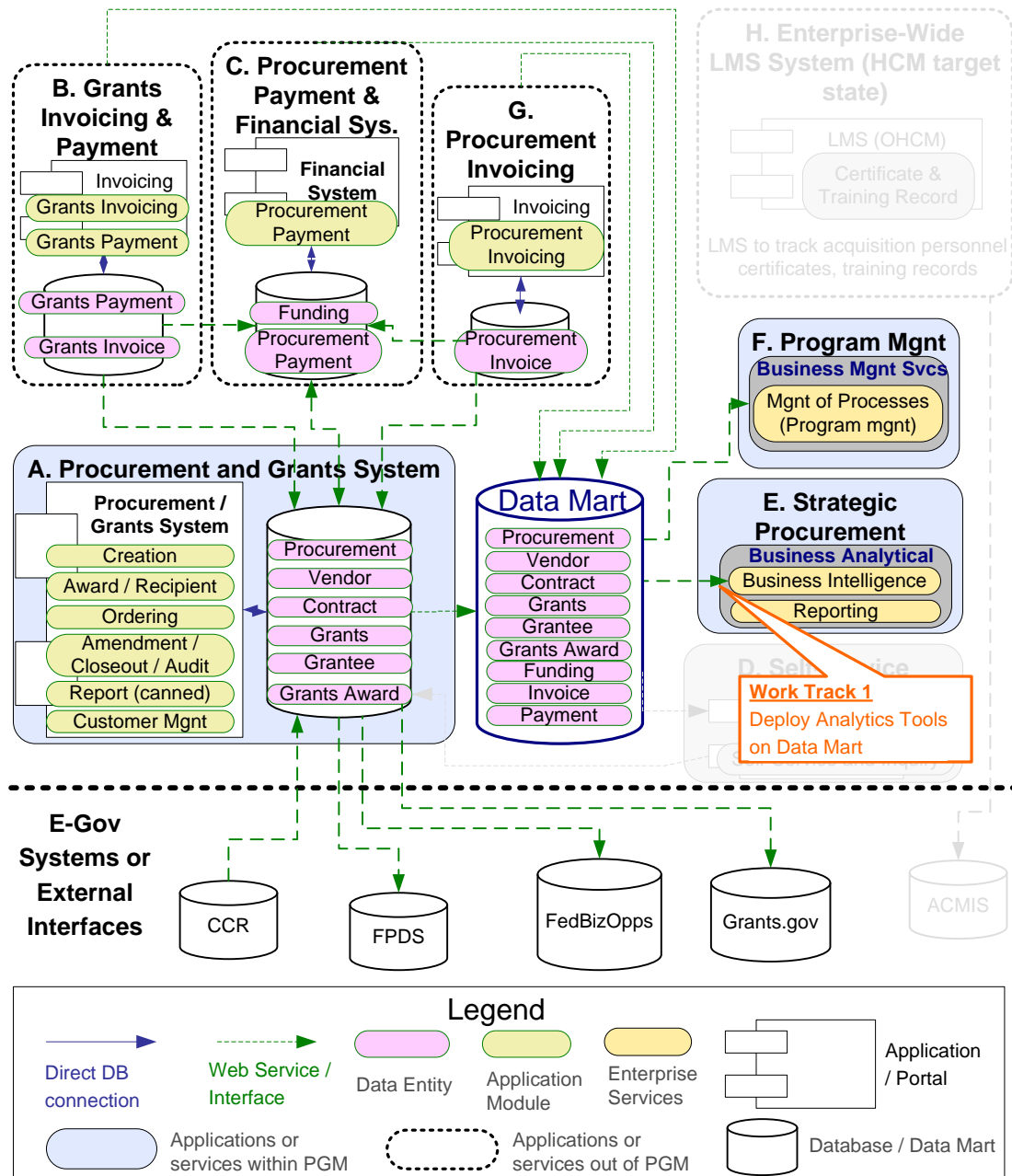
This initiative is comprised of several work tracks that must be accomplished in order to fully implement the initiative and reach the target state. PGM, together with OCIO, will need to undertake the following steps and plan for the following resources.

##### **4.4.4.1 Work Tracks**

###### **Work Track 1: Define & deploy analytics on data mart (DM)**

Supporting strategic procurement as a function involves providing the PGM segment with data analytic tools to analyze historical procurement data for the purpose of developing insights for taking proactive steps. The first step is to define the types of analytics that will be of use to the strategic procurement function. This involves understanding the data, data sources, and manipulations that will allow a user to obtain strategically useful information. This information feeds into the Data Mart work track from initiative #3. As the data mart comes on-line, analytic tools used by the SBA can be deployed onto the data mart to execute the types of analysis defined at the beginning.

The impacts of this work track are depicted in the following diagram:

**FIGURE 4: STRATEGIC PROCUREMENT WORK TRACK**


#### 4.4.4.2 Key Resources

1. Project Manager: Person able to apply business and implementation expertise to drive the project success and get commitment from all internal and external stakeholders
2. Business Process Analysts: Analysts who are familiar with the business and can help write the necessary requirement documents and aid in creating the functional specifications
  - a. Specialized Business Analyst who can determine the data analysis needs of strategic procurement.

3. Development Resources: Person(s) able to implement the tools and support systems described in this initiative
  - a. OCIO Resource for integrating with SBA business intelligence and analytics tools, if leveraged

#### 4.4.5 Key Issues and Risks

Execution risks relevant to this initiative, and their mitigation strategies, are listed below

**TABLE 10: STRATEGIC PROCUREMENT RISKS AND MITIGATION**

Risks	Mitigation Strategies
Since performing strategic procurement is somewhat of a new function for the SBA, the precise analytics and reporting needs of this function may not be fully known upfront	Investigation into best practices in strategic procurement at other federal agencies should be pursued first in order to fully understand needs and to best define analysis required
This could result in a system designed to meet perceived needs that fails to meet actual needs	Deployment should take place in multiple phases to make sure that value is being produced by the system delivered.
Difficult to quantify saving or cost avoidance	The system should provide support for ad-hoc analysis and querying and reporting.

#### 4.4.6 Cross Reference with Target State Opportunities

**TABLE 11: OPPORTUNITIES REALIZED BY STRATEGIC PROCUREMENT**

No.	Opportunity
26	Support for acquisition plans
12	Leverage historical data to project future
14	Queries on historical procurement data
32	Yearly notice of upcoming procurements
33	Explicitly tie procurements to agency mission & goals
34	Keep grant stakeholders informed of change

#### 4.4.7 Cross Reference with Target State Performance Indicators

This initiative targets the achievement of the following performance metrics

**TABLE 12: PERFORMANCE METRICS IMPACTED BY STRATEGIC PROCUREMENT**

No.	Performance Indicator
3.1.1	Percent of awards to small business
3.1.2	Percent of awards to small disadvantaged business
3.1.3	Percent of awards to woman owned
3.1.4	Percent of awards to 8(a)

No.	Performance Indicator
3.1.5	Percent of awards to HUBZone
3.1.6	Percent of awards to service disabled veteran owned
3.2.1	Percent of contracts and purchase orders awarded competitively

## 4.5 Initiative #5: Self-Service Portal

### 4.5.1 Concept Summary

#### 4.5.1.1 Background

Vendors and grantees currently interact with eGovernment systems like FedBizOpps.gov and Grants.gov in order to see what opportunities are available and to initially pursue these opportunities. These systems provide users with a certain level of transparency and facilitate interaction with the government. However, once they start speaking with the SBA directly, they rely on manual processes, paper, and have no visibility into what is happening.

#### 4.5.1.2 Solution Description

The self-service portal is intended to empower vendors and grantees by giving them greater access to the procurement and grants processes. Where FedBizOpps.Gov and Grants.Gov provide a cross-government electronic entry point for users, no electronic interface persists after the procurement and grants management becomes SBA-specific. This portal continues this electronic experience, allowing grantees and vendors to view status and submit forms and data to the PGM function. Having this self service portal will offload tasks from SBA DPGM, such as form validation.

### 4.5.2 Benefits

#### 4.5.2.1 Qualitative Benefits

- Increased visibility to external stakeholders
- Fewer requests to DPGM staff
- Better informed customers
- Improved customer satisfaction
- Active participation from customers

#### 4.5.2.2 Financial Benefits

- Labor time saved from simplifying time-intensive tasks like form validation

### 4.5.3 Dependencies and Assumptions

#### 4.5.3.1 Dependencies

- Work Track 1 has no dependency and can begin as soon as resources are available
- Work Tracks 2 and 3 require the completion of Work Track 1 Data Mart from initiative #4 Enterprise Wide Procurement and Grants

#### 4.5.3.2 Assumptions

- Grantees and vendors will use the self-service portal
- The ability to view status, supply information, and have submitted information validated without the need for procurement and grants staff to assist will result in fewer calls and questions for DPGM

#### ***4.5.4 High Level Implementation Plan***

This initiative is comprised of several work tracks that must be accomplished in order to fully implement the initiative and reach the target state. PGM, together with OCIO, will need to undertake the following steps and plan for the following resources.

##### **4.5.4.1 Work Tracks**

###### **Work Track 1: Informational Portal**

The self service portal will provide a one-stop entry point for SBA vendors and grantees. Towards this end, the first step is to stand up this portal and provide informational resources, such as forms for download and links to other useful web sites and services.

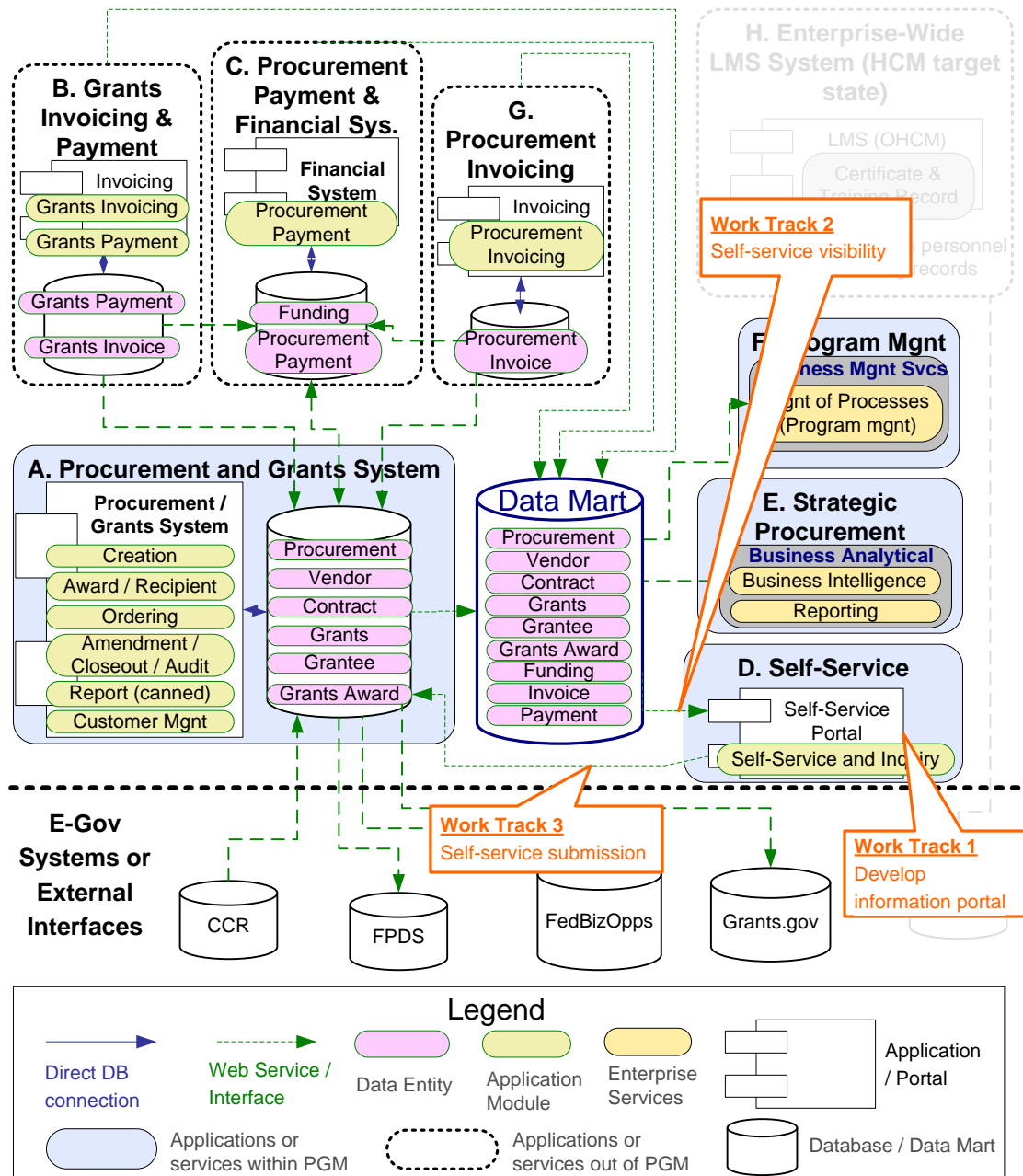
###### **Work Track 2: Self-Service Visibility**

Providing visibility into the status of current activity will require adding authentication and security capabilities to the portal, as well as integrating the portal with the data mart. This integration will provide vendors and grantees to useful information about their procurements, grants, and invoices.

###### **Work Track 3: Self-Service Submission**

The final work track will allow vendors and grantees to use the portal to submit information to the SBA through the use of online forms. This will require integration between the self service portal and other IT systems, such as the Procurement and Grants IT System and the data mart. A key feature will include the validation of form input, preventing vendors and grantees from inputting inconsistent or erroneous data.

The impacts of these work tracks are depicted in the following diagram:

**FIGURE 5: SELF SERVICE PORTAL WORK TRACKS**


#### 4.5.4.2 Key Resources

1. Project Manager: Person able to apply business and implementation expertise to drive the project success and get commitment from all internal and external stakeholders
2. Business Process Analysts: Analysts who are familiar with the business and can help write the necessary requirement documents and aid in creating the functional specifications
3. Development Resources: Person(s) able to implement the tools and support systems described in this initiative
  - a. OCIO Resource for integrating solution with SBA.Gov web site



### 4.5.5 Key Issues and Risks

Execution risks relevant to this initiative, and their mitigation strategies, are listed below

**TABLE 13: SELF SERVICE PORTAL RISKS AND MITIGATION**

Risks	Mitigation Strategies
Self-service is a moving target. Grants.Gov and FedBizOpps.Gov may expand their service offerings to play a larger role even after the vendor or grantee is speaking directly to the SBA.	Inquiry into the long term plans of eGov procurement and grants systems, so as to avoid overlap in function within the short term
Security and privacy becomes a much larger concern once a self	Coordination with OCIO will help address security and privacy issues

### 4.5.6 Cross Reference with Target State Opportunities

**TABLE 14: OPPORTUNITIES REALIZED BY SELF SERVICE PORTAL**

No.	Opportunity
8	Supplemental grant forms on SBA.Gov
11	Greater grants transparency to comply with Public Law 106
28	Grant applicant self-service
32	Yearly notice of upcoming procurements
36	Reduce touch points in processes

### 4.5.7 Cross Reference with Target State Performance Indicators

This initiative targets the achievement of the following performance metrics

**TABLE 15: PERFORMANCE METRICS IMPACTED BY SELF SERVICE PORTAL**

No.	Performance Indicator
1.2.1	Average processing time per action
1.2.3	Ratio of contracts and POs processed per FTE
2.1.1	Percentage of DPGM customers satisfied (survey score)
2.2.1	Contractor/grantee satisfaction (survey scores)

## 4.6 Initiative #6: ACMIS Integration

### 4.6.1 Concept Summary

#### 4.6.1.1 Background

As directed under the Clinger-Cohen Act and tracks for Federal Acquisition Certifications (FAC) requirements and achievement levels, it is mandated that federal government agencies need to maintain training records of their acquisition workforce. DPGM currently relies on user-level solution such as Microsoft Excel to track acquisition contract personnel training and certificates. Federal government agencies are also mandated to use Acquisition Career Management

Information System (ACMIS), a government wide system, to maintain the acquisition contract personnel certificates and training records.

#### **4.6.1.2 Solution Description**

A Learning Management System (LMS) is a component in HCM segment target state architecture. Since LMS is an enterprise-wide solution that tracks employee training records and certificates, it covers the need for acquisition contract personnel and could be leveraged to meet the mandates. A data interface from this LMS to ACMIS will be developed in order to ensure the consistency of data and eliminate the double-entry effort.

### **4.6.2 Benefits**

#### **4.6.2.1 Qualitative Benefits**

- Allow contract specialist to focus on value-added activities
- Automate the interface with ACMIS for better efficiency and less error
- Simplify training records and certificates recording for acquisition contract personnel
- Meet federal agency mandates

#### **4.6.2.2 Financial Benefits**

- Lower cost due to a single, enterprise-wide system solution of LMS
- Time and labor saved by eliminating double-data-entry
- Time and labor saved by eliminating manual tracking

### **4.6.3 Dependencies and Assumptions**

#### **4.6.3.1 Dependencies**

- This initiative has no dependency on other initiatives within PGM. It depends on the completion of the Learning Management Initiative from the HCM segment architecture roadmap.
- Work Track 2 depends on the completion of Work Track 1.

#### **4.6.3.2 Assumptions**

- LMS can track all the training records and certificates and will never delete or expire records
- LMS supports necessary access control so authorized DPGM personnel can access requisition contract personnel's training records and certificates
- LMS supports external data interface or direct data access by another IT system
- ACMIS provides data integration interfaces or the specification on how to develop the data interface
- ACMIS provides technical support for the development, test, deployment and operation of the data interface

### **4.6.4 High Level Implementation Plan**

#### **4.6.4.1 Work Tracks**

##### **Work Track 1: LMS Deployment**

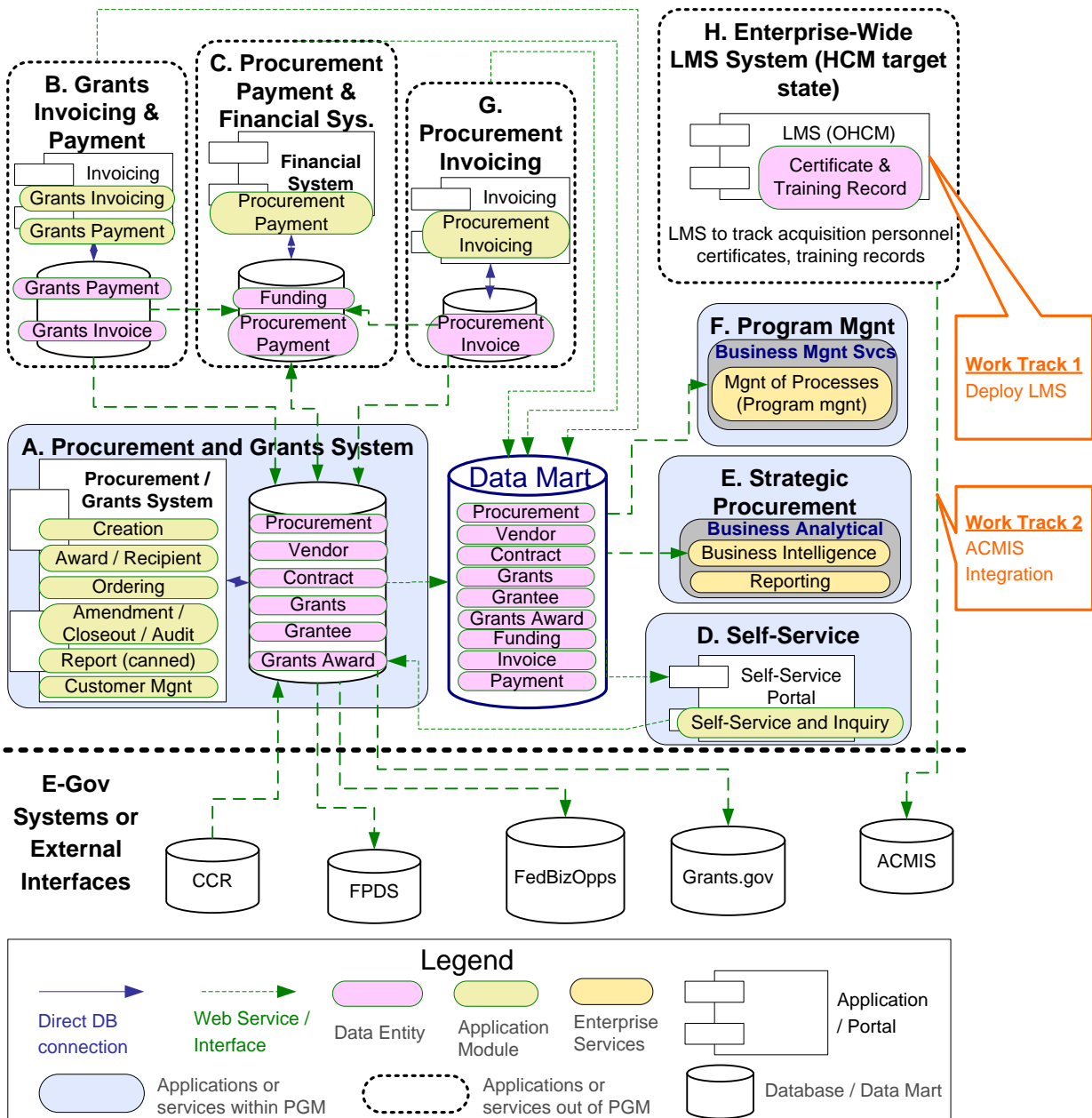
- Deploy LMS solution enterprise-wide for all employees to track training records and certificates

### Work Track 2: Integration between LMS and ACMIS

- Define interface requirements between LMS and ACMIS
- Implement, test and deploy interface

This diagram illustrates how each work track in this initiative impacts on target state architecture:

FIGURE 6: ACMIS INTEGRATION WORK TRACKS



#### 4.6.4.2 Key Resources

1. Project Manager: Person able to apply business and implementation expertise to drive the project success and get commitment from all internal and external stakeholders
2. Development Resources: Person(s) able to implement the tools and support systems described in this initiative

#### 4.6.5 Key Issues and Risks

Execution risks relevant to this initiative, and their mitigation strategies, are listed below

**TABLE 16: ACMIS INTEGRATION RISKS AND MITIGATION**

Risks	Mitigation Strategies
LMS is not deployed in time to meet any ACMIS related mandate requirements	Communicate the needs to HCM, the owner of LMS, and ensure that LMS could be deployed in time to meet any mandate
LMS cannot fully support ACMIS related requirements	Communicate the needs to HCM, the owner of LMS, and ensure that LMS could meet ACMIS related requirements
The LMS solution does not support any external data interface	Communicate the requirements about the ACMIS data interfaces to HCM, the owner of LMS, so the interface requirements are taken into consideration at the stage of product selection
Obstacles during data interface development, test, operation, technical support	Coordinate with HCM, OCIO and point of contact at ACMIS program office during the project life cycle.

#### 4.6.6 Cross Reference with Opportunities

This initiative helps realize the following opportunities in the target state:

**TABLE 17: OPPORTUNITIES REALIZED BY ACMIS INTEGRATION**

#	Opportunity
9	Centralized training data & ACMIS compliance
15	Procurement training for POs
16	Fine-tuned IDPs for staff
24	Leverage the specialized skills of Cos

#### 4.6.7 Cross Reference with Performance Metrics

This initiative targets the achievement of the following performance metrics

**TABLE 18: PERFORMANCE METRICS IMPACTED BY SELF SERVICE PORTAL**

#	Performance Metric
1.3.1	Percentage of contracting staff that are certified

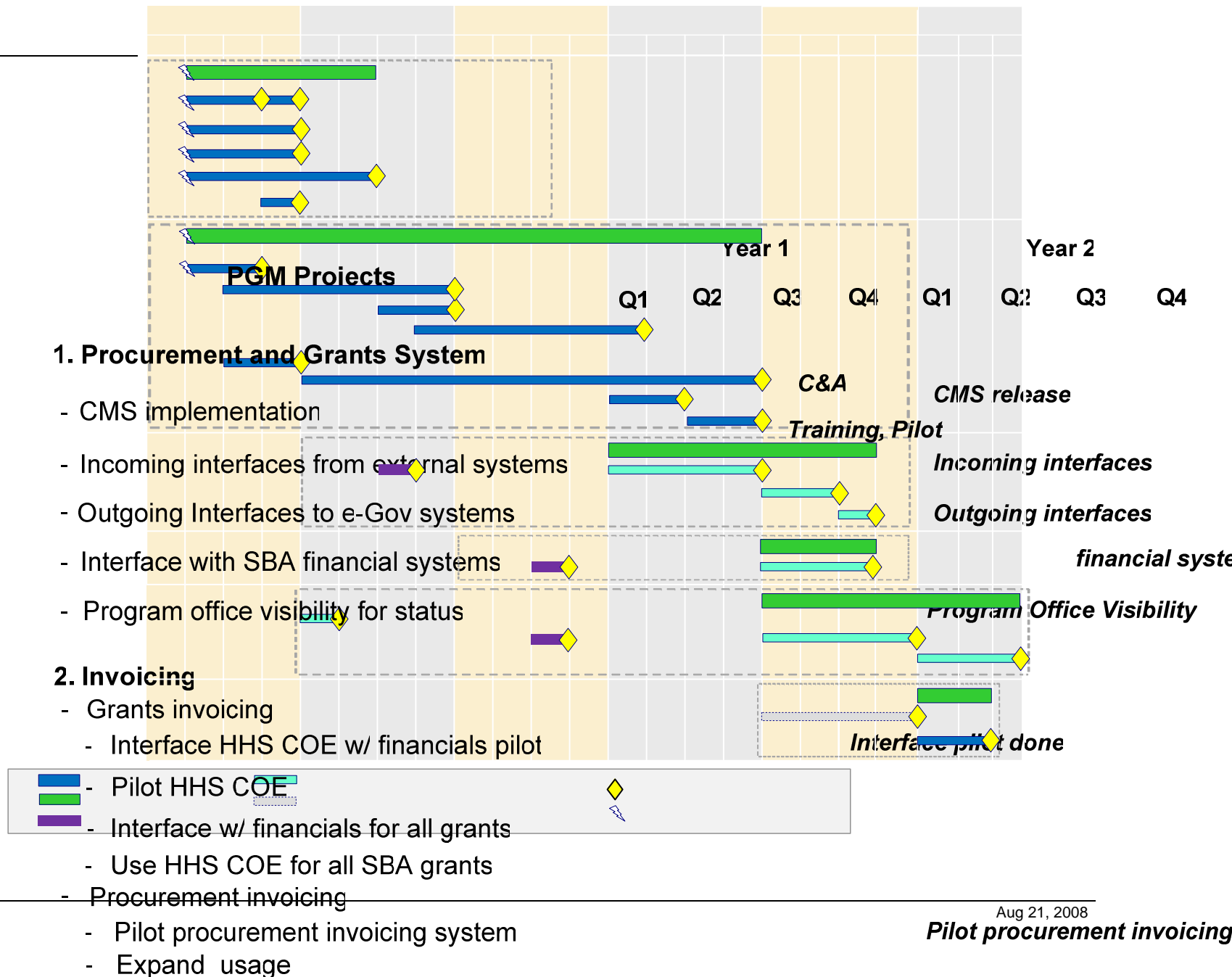
## 5 Sequencing Plan

We applied a systematic approach to rationalizing potential initiatives and sequencing the final list into a realistic plan based on benefits / value, priorities, dependencies, execution constraints, and risk-adjusted pace of execution. Sequenced initiatives plan is a strategic plan that is used to execute the projects in order to deliver business benefit over time. The six initiatives that are identified are sequenced for implementation based upon following considerations:

- **Business imperatives** such as declared business milestones, agency strategic plan etc.
- **Resource dependencies** on specific type of resources, both labor and financial, needed to execute projects.
- **In-flight and planned investments** such as the Procurement and Grants System initiative.
- **Dependencies** between projects such as technical dependencies

The sequenced initiatives in Figure 7: include overall timelines and intermediate milestones as a particular initiative is executed over time. Each initiative is then further broken down into work streams along with associated timelines and milestones. This sequencing plan can be used by the program offices in budgeting and planning their activities for next five years. It would enable program offices to stay focused on achieving target state and to dedicate resources accordingly.

FIGURE 7: SEQUENCED INITIATIVES



## 6 Business Justification

For each of the six initiatives, financial analysis was developed including rough quantification of benefits and high level estimation of costs. Building the required capabilities will require a total program investment with a rough order of magnitude of \$X M - \$XM over seven years. The goal is to implement the initiatives defined in the roadmap over a seven year period. It will also require operations and maintenance expenses in the post implementation years.

Each initiative was modeled to determine a total cost of ownership, including government employee cost, cost of hardware and software, and contractor costs. Estimates were based on current SBA figures and industry benchmarks. As each initiative proceeds, a more detailed business case and solution architecture will be required for each.

**TABLE 19: INITIATIVE COST BREAKDOWN (FY 2008 – FY 2014)**

	Internal Labor	Contractor	Software	Hardware	Yearly Maintenance	Total Cost	Benefits*	Net Impact
Contract Management System								
Procurement and Grants Invoicing								
Enterprise-Wide Procurement and Grants System								
Strategic Procurement								
Self Service Portal								
ACMIS Integration								

\*Benefits include elimination of interest penalties due to late invoice payments and licensing costs of decommissioned systems

**TABLE 20: PROJECTED COST BREAKDOWN BY YEAR**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Implementation							
Maintenance							
Total							
Benefits*							
Net Impact							

\*Benefits include elimination of interest penalties due to late invoice payments and licensing costs of decommissioned systems



As with any financial projections, several assumptions had to be made to arrive at figures. A summary of those assumptions is below.

**TABLE 21: FINANCIAL MODEL ASSUMPTIONS**

Category	Assumption	Comments	Source
FTE Costs (Internal)			
FTE Costs (External)			
Soft Benefits			
Length of Time			

## 7 Risk Management

No business transition strategy or major IT implementation is without risk. In addition to the specific risks described in each initiative description above, there are several general risks that cross the entire roadmap. The table below summarizes some of the risks evident at this point, together with strategies for mitigating those risks. New and different risks will appear, and must be tracked and resolved, as PGM moves through the roadmap towards the target state.

**TABLE 22: RISKS AND MITIGATIONS**

Risks	Mitigation
<b>Budget and Resources</b>	
<ul style="list-style-type: none"> <li>Margin of error in high-level estimates due to complexity and duration of initiatives</li> <li>Key resources required for project development and on-going operations. PGM will have to rely on external and SBA OCIO resources.</li> </ul>	<ul style="list-style-type: none"> <li>Include project contingencies, where appropriate</li> <li>Perform detailed analysis and design prior to launching initiatives. If possible, obtain seed funding for planning, so that proper alternatives analysis and solution architecture can be defined before significant investments are made</li> <li>Utilization of proper mix of internal &amp; external resources with appropriate skill sets</li> </ul>
<b>Technology</b>	
<ul style="list-style-type: none"> <li>High level technical solutions as envisioned by the target state are not feasible once implementation begins</li> </ul>	<ul style="list-style-type: none"> <li>Develop complete solution architectures for each initiative (and worktrack where required) in advance of making major investments</li> </ul>
<b>Compliance/Policy</b>	
<ul style="list-style-type: none"> <li>Failure to implement specific requirements or enhancements could result in regulatory non-compliance and OIG concern</li> <li>Federal policies have not kept up with technological advancements. While PGM may have the technology and expertise to deploy new functionality, policy limits may prevent it.</li> </ul>	<ul style="list-style-type: none"> <li>Spend the funds required to address the gap in the short term in areas where there is known non-compliance</li> <li>Perform detailed functional assessment and data mapping reviews to ensure compliance</li> <li>Understand legal requirements and implications of functional requirements, data, and implementation strategies</li> <li>Stay involved with OMB and the Federal CIO Council as they determine best practices and policy for new areas</li> <li>Work closely with the Office of General Counsel within SBA to understand the policies that SBA has in place already</li> </ul>
<b>Communication</b>	
<ul style="list-style-type: none"> <li>External project dependencies could delay the completion of initiatives</li> </ul>	<ul style="list-style-type: none"> <li>Ensure collaboration and proactive communication with external and internal constituents. Solicit feedback throughout requirements definition and testing phases</li> <li>Track and communicate cross-project dependencies</li> <li>Create communication plan identifying recipients, frequency and message formats</li> </ul>

## 8 Next Steps

There is a significant amount of work for PGM and OCIO to accomplish before reaching the desired target state. Several immediate next steps span all the initiatives and will help get the transition underway.

### 1. Establish Integrated Project Teams (IPTs) and mobilize resources

- Identify an executive sponsor and steering committee membership for each initiative.
- Establish the mix of internal and external resources for planning phases.
- Identify resources for shared services and PMO lead positions and assess internal staff availability.
- Develop PGM specific governance structures, processes, tools, roles and responsibilities in line with existing SBA CPIC processes.
- Define, prepare and launch communication plan.
- Develop Program Management Plans for each initiative.

### 2. Confirm scope and sequencing of initiatives

- Confirm initiative priority and sequencing
- Evaluate in-flight and/or planned projects from 2008 and 2009 budgets. Determine the projects that need to proceed, be repurposed, or cancelled and apply scope changes as necessary to align with the objectives. Identify any change orders or contracting needs.
- Develop detailed project charters, scope, budget and plans for 2008 and 2009 initiatives.

### 3. Define plan for architecture alignment and financial metrics management

- Develop processes for working with OCIO and TRB to ensure solution architecture is compliant with the enterprise architecture.
- Develop processes for tracking benefit, cost and portfolio spend for reporting (BTIC, OMB).

### 4. Begin to plan out the investment and funding strategy for each initiative

- For each initiative that requires FY2008 funding, examine existing business cases to determine how budget request is allocated.
- For each initiative that will require funding in FY2010, seed money should be allocated for planning, including the alternatives analysis and development of the business case.

## 9 Appendix A: Acronyms

The following is a list of acronyms used in this document

**TABLE 23: LIST OF ACRONYMS**

Acronyms	Expansion
ACMIS	Acquisition Career Management Information System
BRM	Business Reference Model
BTIC	Business Technology Investment Council
C&A	Certification and Accreditation
CCR	Central Contractor Registration
CMS	Contract Management System
COE	Center of Excellence
CO	Contracting Officer
COTR	Contracting Officer Technical Representative
COTS	Commercial Off-The-Shelf
DPGM	Division of Procurement and Grants Management
DRM	Data Reference Model
ED/OED	Entrepreneurial Development
EEOC	Equal Employment Opportunity Commission
FAC	Federal Acquisition Certification
FEA	Federal Enterprise Architecture
FPDS	Federal Procurement Data System
GO	Grants Officer
GOTR	Grants Officer Technical Representative
HCM	Human Capital Management
HHS	Department of Health and Human Services
IDP	Individual Development Plan
JAAMS	Joint Administrative Accounting Management System
LMS	Learning Management System
LTO	Long Term Objective
OBO	Office of Business Operations

Acronyms	Expansion
OCIO	Office of the Chief Information Officer
OIG	Office of the Inspector General
OMB	Office of Management and Budget
OWBO	Office of Women's Business Ownership
PGM	Procurement and Grants Management
PMO	Program Management Office
PO	Program Office or Purchase Order
PPIRS	Past Performance Information Retrieval System
RFP	Request for Proposal
SBA	Small Business Administration
SBDC	Small Business Development Center
SBPRA	Small Business Paperwork Reduction Act
SRM	Service Component Reference Model
TRB	Technical Review Board
TRM	Technical Reference Model

## 10 Appendix B: Strategic Alignment

Strategic alignment of the roadmap and its initiatives with PGM goals and objectives, as well as with the SBA agency-wide IT Strategic Plan are critical to its success. The tables below map each initiative from the Roadmap to the PGM goals, objectives, and performance measures, and then map the initiatives to any relevant cross agency initiatives.

Each planned initiative is in direct support of one or more of PGM's strategic objectives and should have a demonstrable impact on the identified performance metrics.

**TABLE 24: STRATEGIC ALIGNMENT OF INITIATIVES**

Initiative	Goal	Objective(s)	Performance Metrics
1: Contract Management System	1: To achieve Operational Excellence	1.1: To produce high quality contracts and grants	N/A
		1.2: To provide efficient and timely service	<ul style="list-style-type: none"> <li>1.2.1 Average processing time per grant action</li> <li>1.2.3 Ratio of contracts and POs processed per FTE</li> <li>1.2.4 Average age of unobligated requisitions</li> </ul>
	2: To provide superior customer service	2.1: To achieve high customer satisfaction from internal customers (program offices)	<ul style="list-style-type: none"> <li>2.1.1 Percentage of DPGM customers satisfied (survey score)</li> </ul>
		2.2: To achieve high customer satisfaction from external customers (contractors, suppliers, grantees)	<ul style="list-style-type: none"> <li>2.2.1 Contractor/grantee satisfaction (survey scores)</li> </ul>
2: Procurement and Grants Invoicing	1: To achieve Operational Excellence	1.2: To provide efficient and timely service	<ul style="list-style-type: none"> <li>1.2.5 Average time between receiving invoices and sending out for payment processing</li> </ul>
	2: To provide superior customer service	2.1: To achieve high customer satisfaction from internal customers (program offices)	<ul style="list-style-type: none"> <li>2.1.1 Percentage of DPGM customers satisfied (survey score)</li> </ul>
		2.2: To achieve high customer satisfaction from external customers (contractors, suppliers, grantees)	<ul style="list-style-type: none"> <li>2.2.1 Contractor/grantee satisfaction (survey scores)</li> </ul>
3: Enterprise-Wide Procurement	1: To achieve Operational Excellence	1.1: To produce high quality contracts and grants	N/A

Initiative	Goal	Objective(s)	Performance Metrics
and Grants System		1.2: To provide efficient and timely service	<ul style="list-style-type: none"> <li>1.2.1 Average processing time per grant action</li> <li>1.2.3 Ratio of contracts and POs processed per FTE</li> <li>1.2.4 Average age of unobligated requisitions</li> <li>1.2.5 Average time between receiving invoices and sending out for payment processing</li> </ul>
	2: To provide superior customer service	2.1: To achieve high customer satisfaction from internal customers (program offices)	<ul style="list-style-type: none"> <li>2.1.1 Percentage of DPGM customers satisfied (survey score)</li> </ul>
		2.2: To achieve high customer satisfaction from external customers (contractors, suppliers, grantees)	<ul style="list-style-type: none"> <li>2.2.1 Contractor/grantee satisfaction (survey scores)</li> </ul>
		3.2: To achieve agency-wide cost savings	<ul style="list-style-type: none"> <li>3.2.1 Percent of contracts and purchase orders awarded competitively</li> </ul>
4. Strategic Procurement	1: To achieve Operational Excellence	1.1: To produce high quality contracts and grants	N/A
	3: To be a strategic solutions provider	3.1: To achieve contractor diversity in support of SBA's socioeconomic goals	<ul style="list-style-type: none"> <li>3.1.1 Percent of awards to small business</li> <li>3.1.2 Percent of awards to small disadvantaged business</li> <li>3.1.3 Percent of awards to woman owned</li> <li>3.1.4 Percent of awards to 8(a)</li> <li>3.1.5 Percent of awards to HUBZone</li> <li>3.1.6 Percent of awards to service disabled veteran owned</li> </ul>
		3.2: To achieve agency-wide cost savings	<ul style="list-style-type: none"> <li>3.2.1 Percent of contracts and purchase orders awarded competitively</li> </ul>
5. Self-Service Portal	1: To achieve Operational Excellence	1.2: To provide efficient and timely service	<ul style="list-style-type: none"> <li>1.2.1 Average processing time per grant action</li> <li>1.2.3 Ratio of contracts and POs processed per FTE</li> </ul>

Initiative	Goal	Objective(s)	Performance Metrics
	2: To provide superior customer service	2.1: To achieve high customer satisfaction from internal customers (program offices)	<ul style="list-style-type: none"> <li>2.1.1 Percentage of DPGM customers satisfied (survey score)</li> </ul>
		2.2: To achieve high customer satisfaction from external customers (contractors, suppliers, grantees)	<ul style="list-style-type: none"> <li>2.2.1 Contractor/grantee satisfaction (survey scores)</li> </ul>
6. ACMIS Integration	1: To achieve Operational Excellence	1.1: To produce high quality contracts and grants	N/A
		1.3: To ensure all contracting and grants staff have necessary skills	<ul style="list-style-type: none"> <li>1.3.1 Percentage of contracting staff that are certified [need name of certification(s)]</li> </ul>

The table below map initiatives from the Roadmap to any relevant cross agency initiatives.

**TABLE 25: INITIATIVES MAPPED TO IT STRATEGIC PLAN AND CROSS-AGENCY INITIATIVES**

No.	Initiative	Cross-Agency Initiative
1	Procurement and Grants System	Integrated Acquisition Environment Grants.Gov
2	Invoicing	Grants Management Line of Business
6	ACMIS Integration	Integrated Acquisition Environment



## 11 APPENDIX C: List of Documents Reviewed

- SBA Strategic Plan FY 2008-2013
- SBA IT Strategic Plan 2007-2011
- Enterprise Architecture Blueprint v2.04
- SBA EA Transition Plan v2.00
- FEA Practice Guidance, November 2007
- FEA Consolidated Reference Model Document Version 2.3
- FEA Data Reference Model 2.0
- [www.sba.gov](http://www.sba.gov)
- [www.egov.gov](http://www.egov.gov)
- 2008 March OBO Scorecard
- OBO Post-Approval Implementation Plan
- OBO Organization Chart
- SBA Performance 2008 and 2009
- OBO Operational Plan
- Testimony of Debra S. Ritt Assistant, Inspector General for Auditing, U.S. Small Business Administration, Before the Committee on Small Business and Entrepreneurship, United States Senate, September 20, 2007